

March 22, 2005

**Internal Audit Report 2005-2  
2004 Parts, Fuel and Chemicals Inventory  
Anchorage Water and Wastewater Utility**

**Introduction.** The Anchorage Water and Wastewater Utility (AWWU) maintains an inventory of parts, gravel, recycled asphalt, chemicals and fuel. Gravel, recycled asphalt, chemicals and fuel at the King Street and Arctic locations are recorded as inventory when purchased and expended during the year. Fuel at the Eklutna Water Treatment Plant is expensed when purchased and not included in inventory. Parts are recorded in inventory records using the Maximo system which interfaces with the PeopleSoft Financial system. AWWU personnel perform cyclical inventories to account for their parts inventory. AWWU maintains their own gasoline and diesel fuel tanks at the Arctic and King street locations and the Eklutna Water Treatment Plant.

**Objective and Scope.** The objective of this audit was to determine the accuracy of AWWU's inventory records for parts, gravel, recycled asphalt, chemicals and fuel. Specifically, we inventoried 86 randomly selected items in the King Street Operations Warehouse and all chemicals at both the Eklutna and Ship Creek Water Treatment Plants. We also reviewed the methods used for measuring fuel inventories and attempted to reconcile the on-hand quantities with the quantities reflected in the Maximo system for the Arctic and King Street locations in addition to the Eklutna Water Treatment Plant.

The audit was conducted in accordance with generally accepted government auditing standards, except for the requirement of an external quality control review, and accordingly, included tests of accounting records and such other auditing procedures as we considered necessary in the circumstances. The Audit was performed during the months of December 2004 and January 2005. The audit was requested by the Administration.

**Overall Evaluation.** Based on our test counts, the inventory records for the Operations Warehouse were reasonably accurate. In addition, inventory records for chemicals at Eklutna and Ship Creek Water Treatment Plants were reasonably accurate. However, the on-hand quantities of fuel did not reconcile with the quantities reflected in the Maximo system. The fuel at the Eklutna refueling site was not included in AWWU's fuel inventory. In addition, the annual inventories of fuel at all vehicle refueling sites and recycled asphalt and gravel were not being performed, as required by AWWU's Policy and Procedure (P&P) 105-2, Operation & Maintenance Division Annual Inventory.

## **FINDINGS AND RECOMMENDATIONS**

### **1. On-Hand Fuel Quantities Differed From Maximo Quantities.**

- a. Finding.** The on-hand fuel quantities at the King Street location (based on meter readings from the Veeder Root system) differed from the record balances in the Maximo system. All fuel deliveries and usage were recorded in the Maximo system and should have reflected the actual on-hand balances. Our comparison of the two quantities found the on-hand fuel quantities differed from the record balances in the Maximo system by over 550 gallons per tank.
- b. Recommendation.** The Operations Warehouse General Foreman should research the reason for the fuel shortage and take appropriate action to correct the problem. In addition, AWWU should consider discontinuing use of their onsite refueling stations and utilize the Fleet One program for fuel needs. The Facility and Fleet Maintenance Division of the Maintenance and Operations Department currently utilizes the services of Fleet One. Fleet One is a service which allows Municipal employees to purchase fuel at gas stations throughout the state of Alaska. This system records the person dispensing fuel, which vehicle they are refueling, the odometer reading of the vehicle they are refueling, and which gas station they are utilizing. Fleet One also interfaces with Fleet's vehicle maintenance system (GEMS 2000) to allow for vehicle maintenance scheduling. According to the Fleet Services

Section, they switched from utilizing Municipal refueling sites to the Fleet One system in order to reduce the cost of maintaining Municipal refueling sites and have found it to be advantageous to continue to utilize the Fleet One services. The Public Transportation Department also utilizes the Fleet One service for their gasoline vehicles and their Share-A-Ride and AnchorRide vehicles.

- c. **Management Comments.** Management stated, “We concur with this finding. The fuel as recorded in the Maximo inventory system was not reconciled to a physical inventory. Fuel will be measured manually with the use of calibrated sticks at each facility and the Maximo inventory subsystem will be adjusted to reconcile to the physical inventory.

“We do not concur with your recommendation to use the ‘Fleet One’ fueling program. Operation and Maintenance is designing and constructing a state-of-the-art fuel management system at 3000 Arctic and 325 E. 94<sup>th</sup> (King Street) in 2005. This system will automatically record the amount of fuel dispensed, the AWWU vehicle it is dispensed to, and the odometer reading of the vehicle. The system will allow electronic entry of the data into MAXIMO.

“Management considered utilizing the Fleet One program for AWWU’s fuel needs. Management decided to keep the onsite refueling stations for the following reasons: (1) During a disaster or an emergency situation, AWWU needs to respond quickly to water and wastewater system failures for obvious public health reasons. Having our own fuel supply allows us to have an effective emergency response capability. (2) AWWU’s fuel facilities have recently been upgraded and currently meet all federal, state and municipal codes. (3) AWWU has been planning to install a new fuel management system since 2003.”

- d. **Evaluation of Management Comments.** Management comments were responsive to the audit finding and recommendation.

**2. Eklutna Fuel Inventories Not Recorded.**

- a. Finding.** The on-hand fuel at the Eklutna refueling site was not included in AWWU's fuel inventory. All of the fuel delivered to the Eklutna Water Treatment Plant was expensed when it was purchased. According to usage logs, at the end of 2004, the Eklutna refueling site had over 850 gallons of fuel on-hand that had not been included in AWWU's fuel inventory.
- b. Recommendation.** AWWU should consider including the fuel inventory at the Eklutna refueling site in their fuel inventory.
- c. Management Comments.** Management stated, "We concur with this finding and recommendation. Fuel purchased for Eklutna will be coded to an inventory account and expensed when used. AWWU will purchase a calibrated stick by March 2005 to measure fuel at Eklutna. AWWU Policy and Procedure 105-2 will be updated in the first quarter of 2005 to include procedures for measuring fuel at Eklutna."
- d. Evaluation of Management Comments.** Management comments were responsive to the audit finding and recommendation.

**3. Annual Inventory of Fuel Not Performed.**

- a. Finding.** An annual inventory of fuel at all vehicle refueling sites was not being performed. According to P&P 105-2, the Materials General Foreman is responsible for the annual fuel inventory at all AWWU vehicle refueling sites. Our review found the Operations Warehouse personnel did not physically verify actual fuel inventories at all of the vehicle refueling sites annually. The main reason for this was that the refueling sites at the King Street and Eklutna Water Treatment Plant did not have calibrated measuring sticks to verify fuel inventories. Those two sites relied on metering systems to tell them how much fuel was in each tank. However, according

to AWWU personnel, these metering systems were not always reliable due to temperature variances and bad sensors. Therefore, there was no way for warehouse personnel to verify the year-end inventory of the fuel tanks at the King Street and the Eklutna Water Treatment Plant vehicle refueling sites.

- b. **Recommendation.** If AWWU personnel decide to maintain their own fuel tanks, calibrated measuring sticks should be purchased for each of their fuel tanks to perform annual physical inventories of fuel.
- c. **Management Comments.** Management stated, “We concur with your finding and recommendation. AWWU will purchase calibrated measuring sticks for all sites by March 2005 and perform annual physical inventories of fuel.”
- d. **Evaluation of Management Comments.** Management comments were responsive to the audit finding and recommendation.

4. **Recycled Asphalt and Gravel Not Measured at Year-End.**

- a. **Finding.** Recycled asphalt and gravel on-hand at year-end was not measured and reconciled to the on-hand quantity recorded in the Maximo system. According to P&P 105-2, “Gravel and recycled asphalt stored at King St. will be measured at year end, given a value according to the most current purchase, . . .” Our discussion with the Excavation and Repair General Foreman revealed that an annual measurement of these materials was not being performed at the King Street location. Additionally, the materials at the Eagle River and Girdwood sites had not been measured in several years.
- b. **Recommendation.** Recycled asphalt and gravel should be measured at year-end as required by P&P 105-2. In addition, P&P 105-2 should be revised to include the gravel and recycled asphalt at the Eagle River and Girdwood sites.

- c. **Management Comments.** Management stated, “We concur with your finding and recommendation. Recycled asphalt and gravel stockpiles will be measured annually by a Registered Land Surveyor to estimate material quantities. In addition, material stockpiles at Eagle River and Girdwood will be estimated annually by the General Foreman at those facilities. P&P 105-2 is currently being reviewed by management and will be revised in the first quarter of 2005 to incorporate the new process for measuring recycled asphalt and gravel.”
  
- d. **Evaluation of Management Comments.** Management comments were responsive to the audit finding and recommendation.

**Discussion With Responsible Officials.** The results of this audit were discussed with appropriate Municipal officials on February 3, 2005.

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